

In the Claims

Canceled Claims

Please cancel claims 1-10 and 19 to 20 as being directed to subject matter in the parent application the claims of which have been allowed and the issue fee paid.

Amended Claims

1.(canceled)

2.(canceled)

3.(canceled)

4.(canceled)

5.(canceled)

6.(canceled)

7.(canceled)

8.(canceled)

9.(canceled)

10.(canceled)

11.(currently amended) A method for producing soy pectin comprising the steps of:

extracting a soybean hull/hypocotyl mixture in a mineral acid at an elevated temperature and for a time and at a pH sufficient to ~~extract~~ form a pectinaceous soy material from the mixture;

cooling the extracted pectinaceous soy material ~~and while~~ raising the pH of the pectinaceous soy material;

separating ~~the extract~~ a soluble pectinaceous soy material from ~~the~~ a solid residue;

precipitating the soluble pectinaceous soy material in an alcohol to form a precipitated pectinaceous soy material; and

drying the precipitated pectinaceous soy material to form a soy pectin.

12.(currently amended) The method of claim 11, further comprising the step of:

pre-washing the soybean hull/hypocotyl mixture in the presence of a solvent for a time and temperature sufficient to ~~produces a pre-extraction~~ for a liquid fraction of the mixture ~~has to obtain~~ a percent transmittance of above about 35% ~~on liquid~~.

1 13.(currently amended) The method of claim 12, further comprising the step of:
2 after pre-washing, soaking the ~~washed~~ soybean hull/hypocotyl mixture in the presence
3 of a solvent for a time, temperature and pH sufficient to expand the cellular matrix of the
4 ~~washed~~ soybean hull/hypocotyl mixture.

1 14.(currently amended) The method of claim 11, further comprising the step of:
2 post-washing the precipitated pectinaceous soy material with pressing in the presence
3 of a solvent a sufficient number of times to ~~wash the~~ form a washed precipitated
4 pectinaceous soy material.

1 15.(currently amended) The method of claim 14, wherein the post-washing step
2 comprising:

3 washing the precipitated pectinaceous soy material at least three times with a 70% 2-
4 propanol aqueous solution with pressing after each washing ~~washings~~ to form a first washed
5 precipitated pectinaceous soy material; and

6 washing the first washed precipitated pectinaceous soy material at least two times with
7 100% 2-propanol ~~washings~~ with pressing after each washing to form the washed precipitated
8 pectinaceous soy material.

1 16.(currently amended) The method of claim 14, further comprising the step of:
2 prior to drying, slowly evaporating the residual 2-propanol from present in the washed
3 precipitated pectinaceous soy material for a time sufficient to enhance the a whiteness of the
4 soy pectin product.

1 17.(currently amended) The method of claim 11, ~~further comprising the step of~~ wherein
2 the drying step comprises:

3 evaporating residual 2-propanol from the precipitated pectinaceous soy material for
4 a time sufficient to enhance a whiteness of the soy pectin; and

1 drying the precipitated soy pectinaceous material under a vacuum at an elevated
2 evaporation temperature.

1 18.(currently amended) The method of claim 11, further comprising the step of:
2 grinding the soy pectin product.

19.(canceled)

20.(canceled)

1 21.(new) A method for producing soy pectin comprising the steps of:

2 pre-washing a hull/hypocotyl mixture in the presence of a solvent for a time and at a
3 temperature sufficient to produce a pre-washed hull/hypocotyl mixture, where a liquid
4 fraction thereof has a percent transmittance above about 35%;

5 extracting the pre-washed hull/hypocotyl mixture in a mineral acid at an elevated
6 temperature for a time and at a pH sufficient to form a soy pectinaceous-containing mixture;

7 cooling the soy pectinaceous-containing mixture while raising the pH;

8 separating a soluble soy pectinaceous material from a solid residue;

9 precipitating the soluble soy pectinaceous material in an alcohol to form a precipitated
10 soy pectinaceous material; and

11 drying the precipitated soy pectinaceous material to form soy pectin.

1 22.(new) The method of claim 21, further comprising the step of:

2 soaking the pre-washed hull/hypocotyl mixture in the presence of a solvent for a time,
3 at a temperature, and at a pH sufficient to expand the cellular matrix of the pre-washed
4 extraction hull/hypocotyl mixture.

1 23.(new) The method of claim 21, further comprising the step of:

2 post-washing the precipitated soy pectinaceous material in the presence of a solvent
3 with pressing after each post-washing a sufficient number of times to form a washed
4 precipitated soy pectanecous material.

1 24.(new) The method of claim 23, wherein the post-washing step comprises:
2 washing the precipitated soy pectinaceous material at least three times with a 70% 2-
3 propanol aqueous solution with pressing after each washing to form a first washed
4 precipitated soy pectinaceous material; and
5 washing the first washed precipitated soy pectinaceous material at least two times with
6 100% 2-propanol with pressing after each washing to form the washed precipitated soy
7 pectinaceous material.

1 25.(new) The method of claim 23, further comprising the step of:
2 prior to drying, slowly evaporating residual 2-propanol from the washed precipitated
3 soy pectinaceous material for a time sufficient to enhance a whiteness of the soy pectin.

1 26.(new) The method of claim 21, wherein the drying step comprises:
2 slowly evaporating residual 2-propanol from the precipitated soy pectinaceous
3 material for a time sufficient to enhance a whiteness of the soy pectin; and
4 drying the precipitated soy pectinaceous material under a vacuum at an elevated
5 evaporation temperature.

1 27.(new) The method of claim 21, further comprising the step of:
2 after drying, grinding the soy pectin.

1 28.(original) A method for producing soy pectin comprising the steps of:
2 pre-washing the hull/hypocotyl mixture in the presence of a solvent for a time and
3 temperature sufficient to produce a pre-washed hull/hypocotyl mixture, where a liquid
4 fraction thereof has a percent transmittance above about 35%;
5 soaking the pre-washed hull/hypocotyl mixture in the presence of a solvent for a time,
6 at a temperature and at a pH sufficient to expand the cellular matrix of the pre-washed
7 hull/hypocotyl mixture;

1 extracting the pre-washed hull/hypocotyl mixture in a mineral acid at an elevated
2 temperature for a time and at a pH sufficient to form a soy pectinaceous-containing mixture;
3 cooling the soy pectinaceous-containing mixture while raising the pH;
4 separating a soluble soy pectinaceous material from a solid residue;
5 precipitating the soluble soy pectinaceous material in an alcohol to form a precipitated
6 soy pectinaceous material; and
7 drying the precipitated soy pectinaceous material to form soy pectin.

1 29.(new) The method of claim 28, further comprising the step of:
2 post-washing the precipitated soy pectinaceous material in the presence of a solvent
3 with pressing after each post-washing a sufficient number of times to form a washed
4 precipitated soy pectanecous material.

1 30.(new) The method of claim 29, wherein the post-washing step comprises:
2 washing the precipitated soy pectinaceous material at least three times with a 70% 2-
3 propanol aqueous solution with pressing after each washing to form a first washed
4 precipitated soy pectinaceous material; and
5 washing the first washed precipitated soy pectinaceous material at least two times with
6 100% 2-propanol with pressing after each washing to form the washed precipitated soy
7 pectinaceous material.

1 31.(new) The method of claim 29, further comprising the step of:
2 slowly evaporating residual 2-propanol from the washed precipitated soy pectinaceous
3 material for a time sufficient to enhance a whiteness of the soy pectin.

1 32.(new) The method of claim 28, wherein the drying step comprises:
2 slowly evaporating residual 2-propanol from the precipitated soy pectinaceous
3 material for a time sufficient to enhance a whiteness of the soy pectin; and

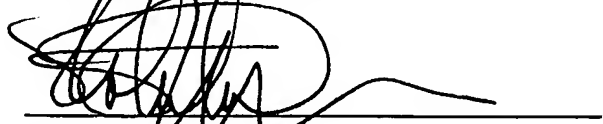
1 drying the precipitated soy pectinaceous material under a vacuum at an elevated
2 evaporation temperature.

1 33.(new) The method of claim 28, further comprising the step of:
2 after drying, grinding the soy pectin.

If it would be of assistance in resolving any issues in this application, the Examiner is kindly invited to contact applicant's attorney Robert W. Strozier at 713.977.7000

5 Date: 18 February 2004

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Robert W. Strozier', is written over a horizontal line.

Robert W. Strozier

Reg. No. 34,024

10